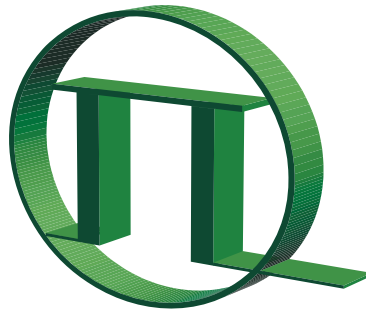


13th International Workshop on “Single Molecule Spectroscopy and Ultrasensitive Analysis in Life Sciences”

Organized by
PicoQuant GmbH



PICOQUANT GmbH
Unternehmen für optoelektronische
Forschung und Entwicklung

Program

September 19 - 21, 2007
at WISTA Campus
Berlin-Adlershof (Germany)

Program (subject to alterations)

Wednesday, 19th September 2007

11.30 - 12.30 REGISTRATION (Conference room: „Max Born Saal“)

Chair: Rainer Erdmann

12.30 - 12.45 Rainer Erdmann, Berlin
Opening Remarks

12.45 - 13.20 Eyal Nir, Los Angeles (**Invited Paper**)
Single-Molecule ALEX-FRET of Proteins and DNA

13.20 - 13.45 Achim Donnermeyer, Bielefeld
A Combination of Scanning Ion-conductance and Fluorescence
Microscopy

13.45 - 14.10 Ben Krämer, Berlin
Recent Advances in Fluorescence Lifetime Correlation Spectroscopy
(FLCS) and Two Focus FCS

14.10 - 14.35 Frank Schleifenbaum, Tübingen (*Students Award*)
Control of Förster Resonant Energy Transfer (FRET) by the Optical
Mode Density of a $\lambda/2$ Microresonator

14.35 - 15.00 Jan Sykora, Prague
Fluorescence Antibunching in Solution: An Absolute Method for
Determining the Average Stoichiometry of Molecular Complexes

15.00 - 15.25 Heidelinde Dietrich, Delft (*Students Award*)
The Detection of DNA-protein Interactions under Near-Native
Biological Conditions

15.25 – 16.00 COFFEE BREAK

Chair: Johan Hofkens

16.00 - 16.35 Ulrich Kubitscheck, Bonn (**Invited Paper**)
Single Molecules and Nanoparticles Exploring Intranuclear
Architecture

16.35 – 17.00 Tina Züchner, Tübingen (*Students Award*)
Gold Nanorods as Non-bleaching Labels: A New Confocal Microscopy
Technique to Characterize the Scattering Patterns and to Detect their
Orientation

17.00 - 17.25 Felix Neugart, Stuttgart (*Students Award*)
Nanodiamonds as Photostable Fluorophoric Lable in Living Cells

17.25 - 17.50 James Rabeau, Sydney
Single Photon Fluorescence in Chemical Vapour Deposited Diamond
Nanocrystals

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- 17.50 - 18.15 Pedro Paulo, Leiden
Photothermal Heterodyne Detection of Single Gold Nanoparticles
Diffusing in Solution
- 18.15 Move to „Wista Corner“
- 18.45 RECEPTION („Wista Corner“)

Thursday, 20th September 2007

Chair: Gilad Haran

- 08.45 - 09.20 Jörg Enderlein, Tübingen / Jülich (**Invited Paper**)
Two-Focus Fluorescence Correlation Spectroscopy
- 09.20 - 09.45 Claus B. Müller, Aachen (*Students Award*)
Studying Temperature Dependent Colloidal Interactions with Single-
and Dual- foci Fluorescence Correlation Spectroscopy
- 09.45 - 10.10 Iris von der Hocht, Jülich (*Students Award*)
Calcium-Myristoyl-Switch of Recoverin
- 10.10 - 10.35 Michael Hilbert, Göttingen
Single-molecule Fluorescence Spectroscopy at High Fluorophore
Concentration
- 10.35 - 11.10 COFFEE BREAK

Chair: William A. Eaton

- 11.10 - 11.35 Nicky Ehrlich, Lübeck (*Students Award*)
Characterization and Exonucleolytic Degradation of High Density-
labeled DNA by FCS
- 11.35 – 12.00 Christian Ringemann, Göttingen (*Students Award*)
Fluorescence Fluctuation Spectroscopy in Dynamically Reduced
Focal Areas Generated by Stimulated Emission Depletion
- 12.00 - 12.25 Zdenek Petrasek, Dresden
Precise Measurement of Diffusion Coefficients Using Scanning
Fluorescence Correlation Spectroscopy
- 12.25 - 12.50 Jana Humpolicková, Prague
Principles and Applications of Time-resolved Fluorescence Correlation
Spectroscopy
- 12.50 - 13.00 GROUP PICTURE
- 13.00 - 14.00 LUNCH

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Program (subject to alterations)

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Chair: Jörg Enderlein

- 14.00 - 14.35 William A. Eaton, Bethesda (**Invited Paper**)
Applications of Single Molecule FRET to Protein Folding
- 14.35 - 15.00 Wiepke Koopmans, Leiden (*Students Award*)
Single-pair FRET Microscopy for Revealing Mononucleosome Dynamics
- 15.00 - 15.25 Jan Vogelsang, Munich (*Students Award*)
smFRET in Nanopipettes: Improving Distance Resolution and Concentration Range
- 15.30 - 18.30 POSTER SESSION and PRODUCT PRESENTATION
- 20.00 DINNER

Friday, 21st September 2007

Chair: Ulrich Kubitscheck

- 08.45 - 09.20 Philip Tinnefeld, Munich
Increasing the Complexity of Single-Molecule Fluorescence Spectroscopy
- 09.20 - 09.45 Yoshihiko Katayama, Munich (*Students Award*)
A Three-Dimensional Orbital Tracking Microscope with Simultaneous Wide-Field Capabilities
- 09.45 - 10.10 Raimund Ober, Richardson
tba
- 10.10 - 10.35 Ben Bowen, Tempe
Absolute Surface Concentrations with Single Molecule Imaging
- 10.35 - 11.10 COFFEE BREAK

Chair: Eyal Nir

- 11.10 - 11.45 Johan Hofkens, Heverlee (**Invited Paper**)
Single Molecule Enzymatics
- 11.45 - 12.10 Susana Rocha, Heverlee (*Students Award*)
Hopping and Scooting: Watching Single Enzyme Molecules at Work
- 12.10 - 12.35 Maria Ott, Halle (*Students Award*)
Intrinsic Motions of Adenylate Kinase

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12.35 - 13.00 Nawid Zarrabi, Stuttgart (*Students Award*)
Data Analysis with Hidden Markov Models on a Single Rotary Motor of ATP Synthase

13.00 - 13.25 Alexander Kiel, Heidelberg (*Students Award*)
Direct Observation of Complex Formation and Dissociation of Single Metal-ion Complexes by Single-molecule Fluorescence Spectroscopy

13.25 - 14.25 LUNCH

Chair: Rainer Erdmann

14.25 - 15.00 Gilad Haran, Rehovot (**Invited Paper**)
Single-molecule Excursions into the Structure of Unfolded Proteins

15.00 - 15.25 Samantha Fore, Sacramento
Single Molecule Protein-protein Interaction Studies of the Phytofluor Red 1 (PR1) Fluorescent Protein Inside Metal Nano-apertures at Physiologically Relevant Concentrations

15.25 - 15.50 Daniel Nettels, Zurich
Ultrafast Dynamics of Protein Collapse from Single Molecule Photon Statistics

15.50 - 16.15 Marcel Leutenegger, Lausanne
Single Molecule Imaging of Odorant Receptors in Tethered Lipid Membranes

16.15 - 16.40 Toby Bell, Parkville
Substituted Naphthalene Diimides (SANDIs) as Novel Fluorescent Labels for Single Molecule Applications

16.40 - 16.50 Rainer Erdmann, Berlin
Presentation of "Students Award"

16.50 - 17.00 Concluding Remarks